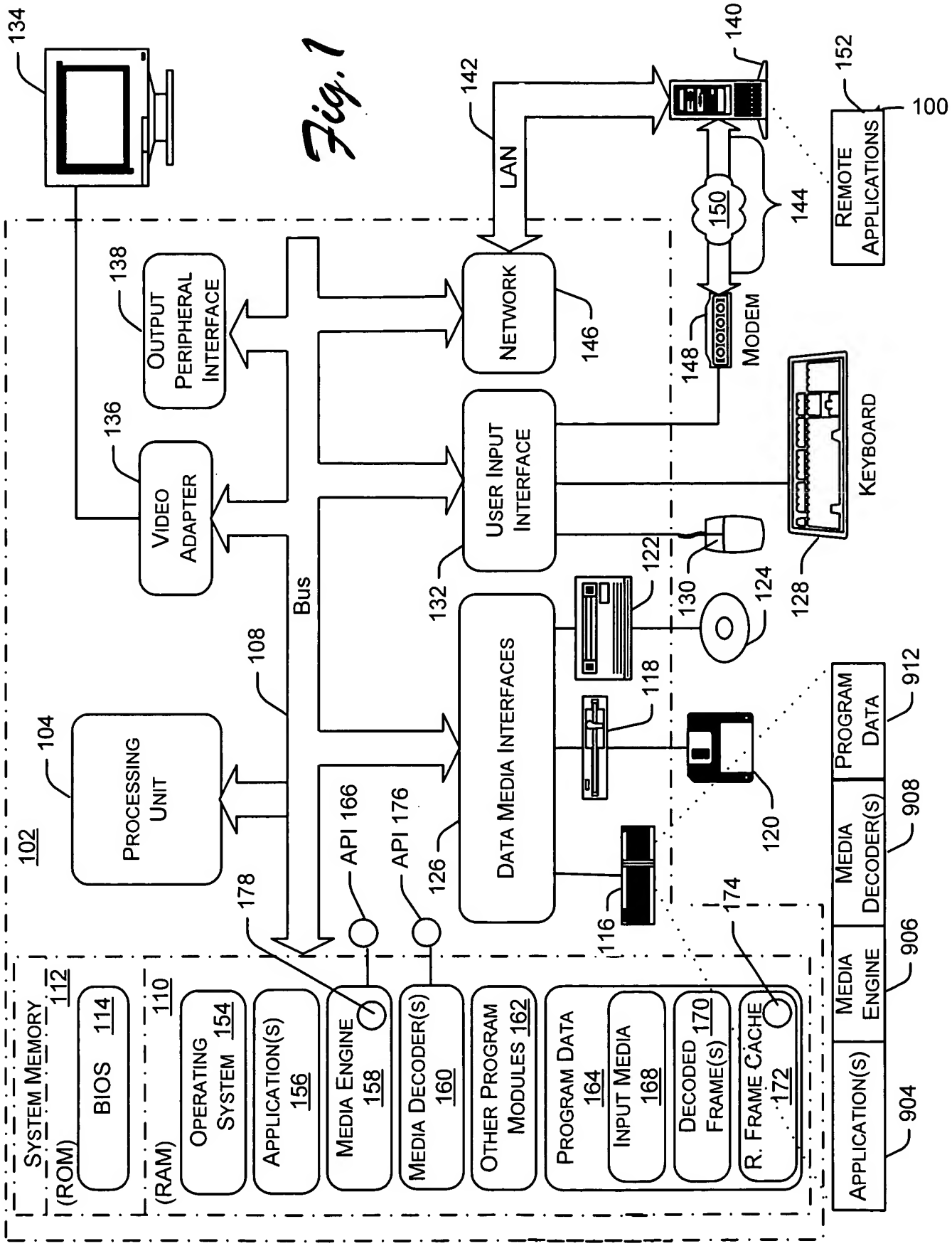
Fig. 1
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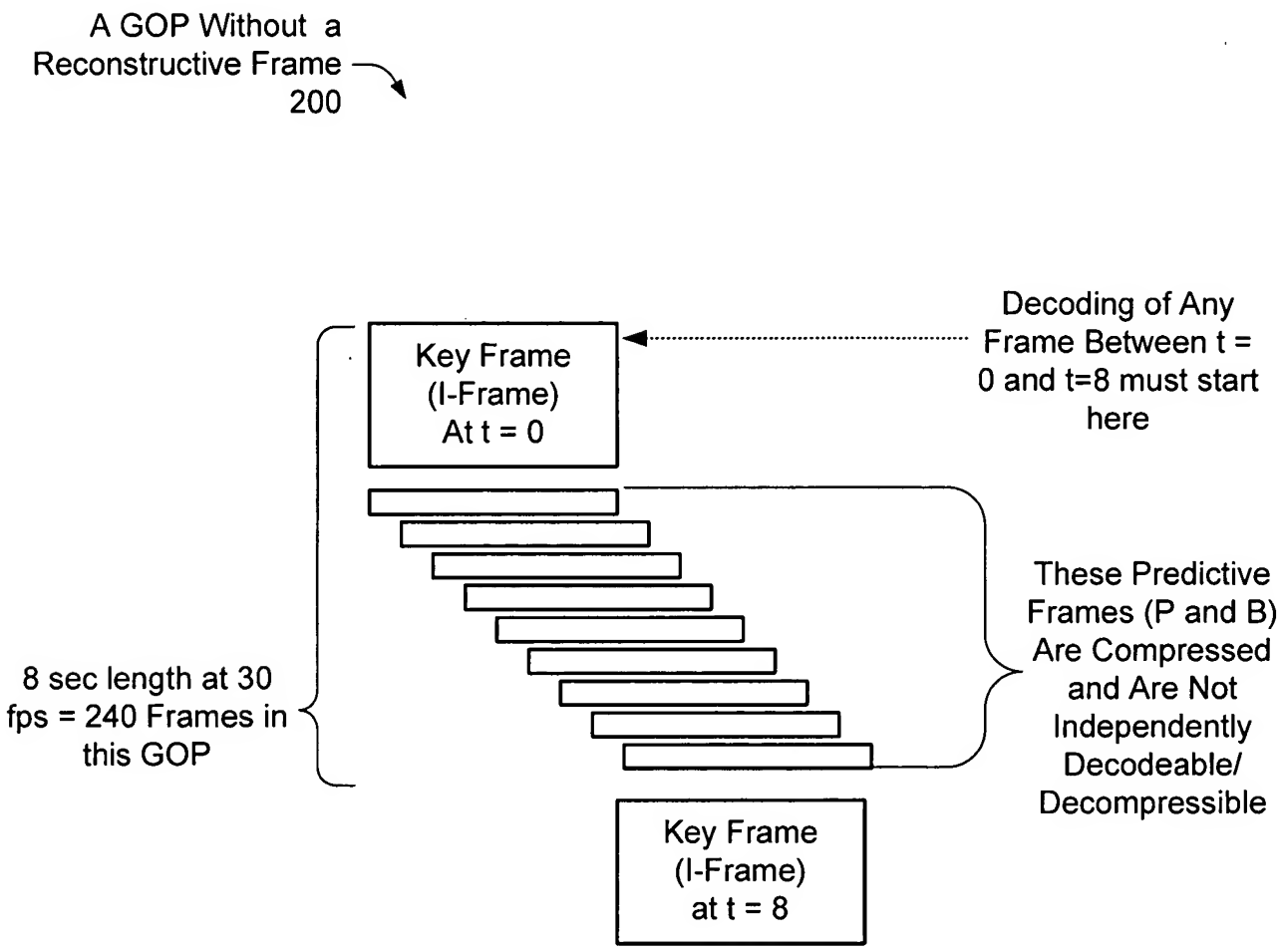
A GOP Without a Reconstructive Frame 200
Key Frame (I-Frame) At t = 0
Decoding of Any Frame Between t = 0 and t=8 must start here
These Predictive Frames (P and B) Are Compressed and Are Not Independently Decodeable/ Decompressible
8 sec length at 30 fps = 240 Frames in this GOP
Key Frame (I-Frame) at t = 8

Fig. 2

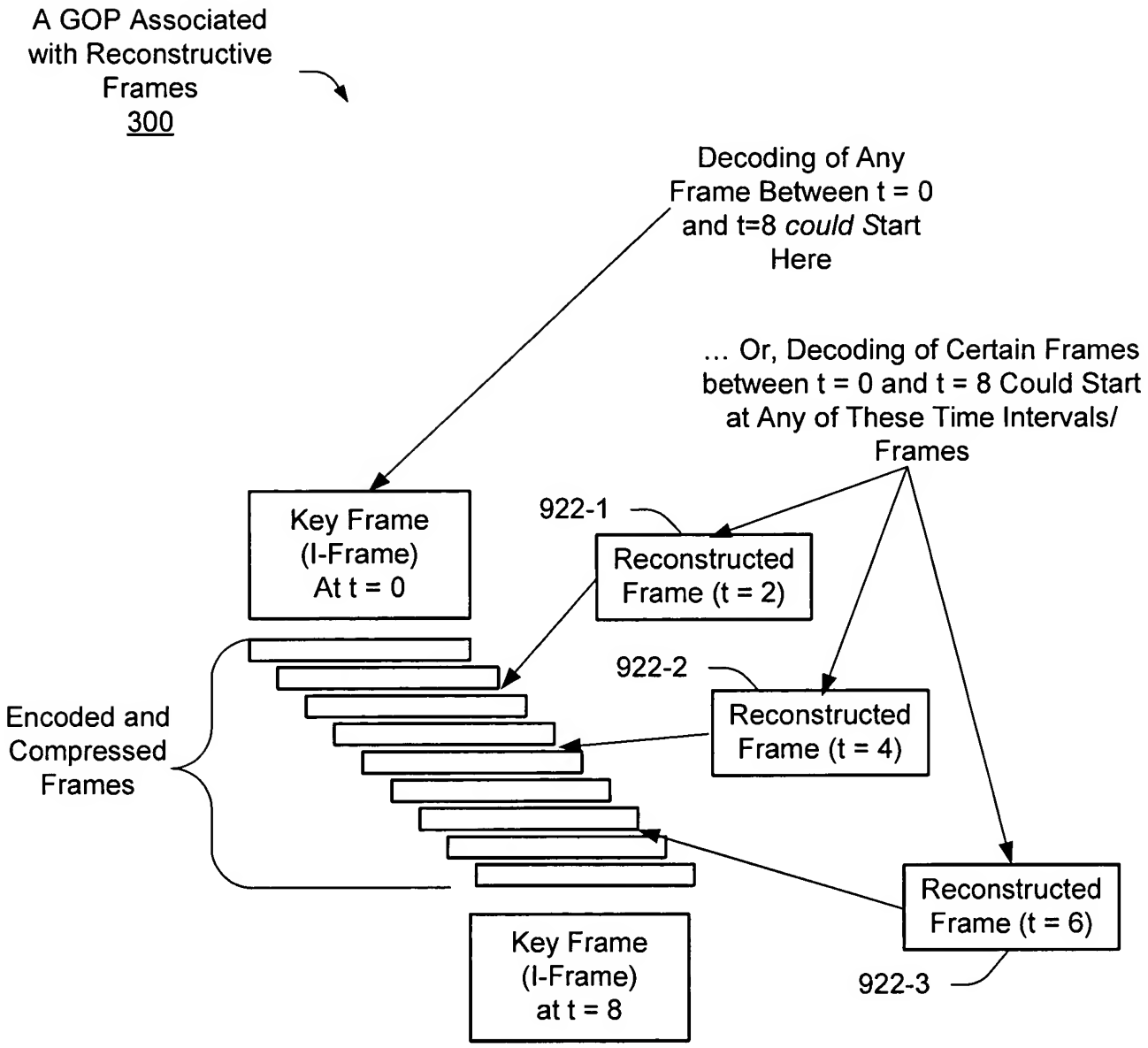
A GOP Associated with Reconstructive Frames
300
Decoding of Any Frame Between t = 0 and t=8 could Start Here
... Or, Decoding of Certain Frames between t = 0 and t = 8 Could Start at Any of These Time Intervals/ Frames
Key Frame (I-Frame) At t = 0
922-1
Reconstructed Frame (t = 2)
922-2
Reconstructed Frame (t = 4)
Encoded and Compressed Frames
Reconstructed Frame (t = 6)
922-3
Key Frame (I-Frame) at t = 8

Fig. 3

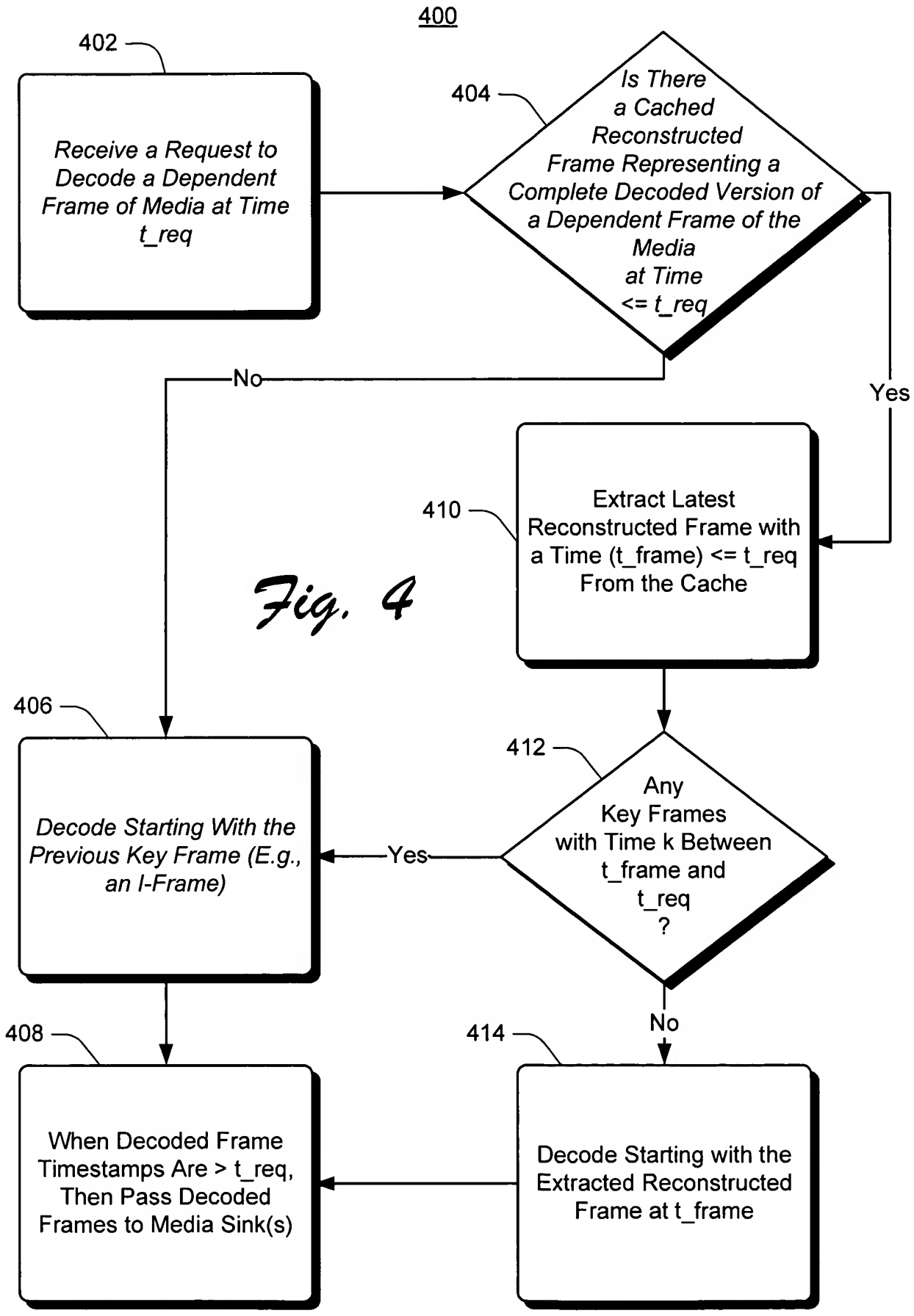
400
402
Receive a Request to Decode a Dependent Frame of Media at Time t_req
404
Is There a Cached Reconstructed Frame Representing a Complete Decoded Version of a Dependent Frame of the Media at Time <= t_req
No
Yes
410
Extract Latest Reconstructed Frame with a Time (t_frame) <= t_req From the Cache
406
Decode Starting With the Previous Key Frame (E.g., an I-Frame)
412
Any Key Frames with Time k Between t_frame and t_req ?
Yes
No
408
When Decoded Frame Timestamps Are > t_req, Then Pass Decoded Frames to Media Sink(s)
414
Decode Starting with the Extracted Reconstructed Frame at t_frame

Fig. 4

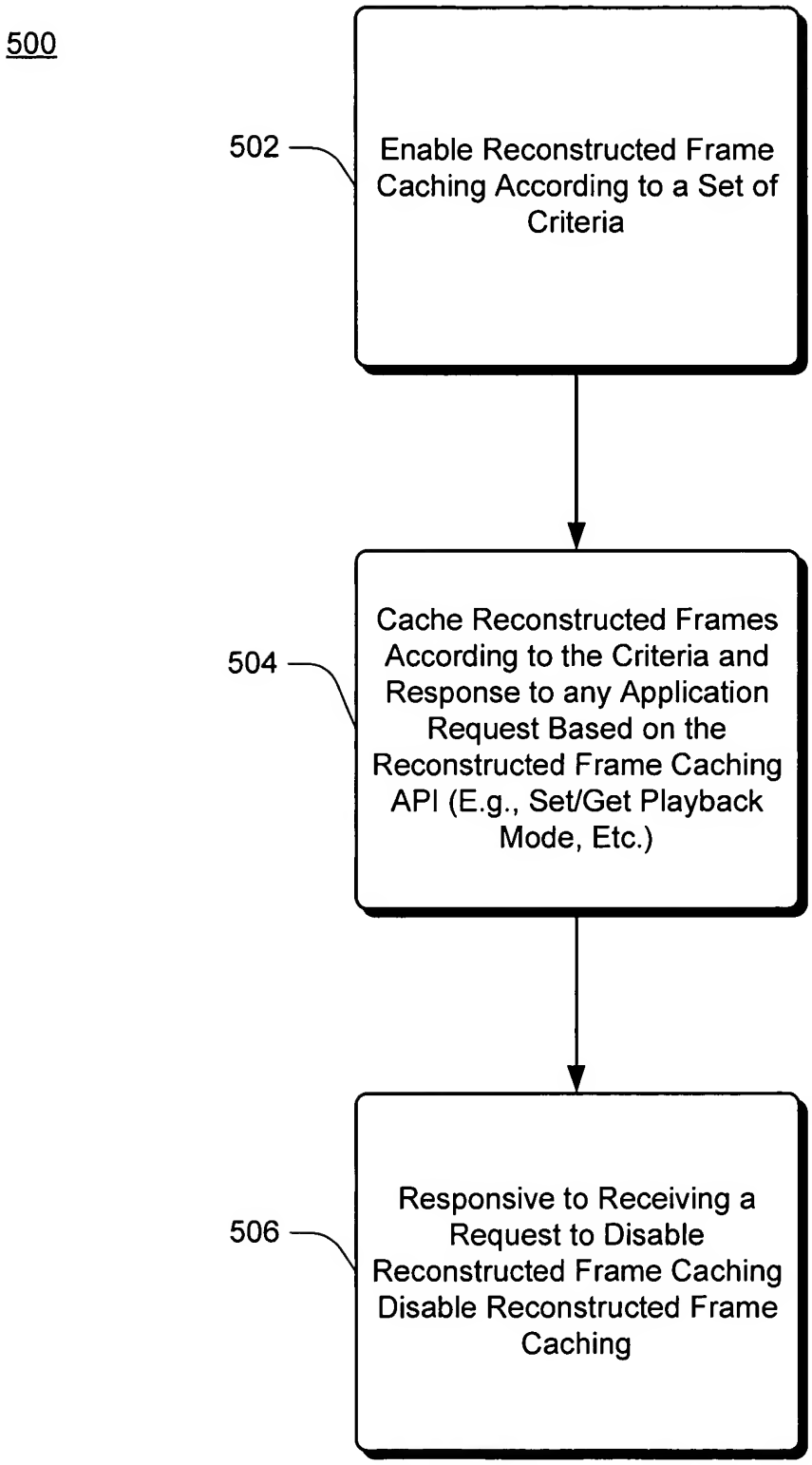
500
502
Enable Reconstructed Frame Caching According to a Set of Criteria
504
Cache Reconstructed Frames According to the Criteria and Response to any Application Request Based on the Reconstructed Frame Caching API (E.g., Set/Get Playback Mode, Etc.)
506
Responsive to Receiving a Request to Disable Reconstructed Frame Caching Disable Reconstructed Frame Caching

Fig. 5